*Installation Instructions*

# ControlLogix™ Controller and Memory Board

Catalog Number: 1756-L1, -L1M1, -L1M2, -L1M3, -L53, -L55, -L55M13, -L55M14, -L55M16, -L55M23, -L55M24, -M1, -M2, -M3, -M13, -M14, -M16, -M23, -M24

**IMPORTANT**  Installation instructions ship with each ControlLogix component. If you want other documentation, you must order it separately. Refer to Additional Manuals on page 38.

## Before You Begin

Use this document to install these ControlLogix components:

- controller
- memory board:
    - The memory board provides additional memory for your controller.
    - You can install only one memory board per controller.

## Important User Information

Because of the variety of uses for the products described in this publication, those responsible for the application and use of this control equipment must satisfy themselves that all necessary steps have been taken to assure that each application and use meets all performance and safety requirements, including any applicable laws, regulations, codes and standards.

The illustrations, charts, sample programs and layout examples shown in this guide are intended solely for purposes of example. Since there are many variables and requirements associated with any particular installation, Allen-Bradley does not assume responsibility or liability (to include intellectual property liability) for actual use based upon the examples shown in this publication.

Allen-Bradley publication SGI-1.1, *Safety Guidelines for the Application, Installation and Maintenance of Solid-State Control* (available from your local Allen-Bradley office), describes some important differences between solid-state equipment and electromechanical devices that should be taken into consideration when applying products such as those described in this publication.

Throughout this manual we use notes to make you aware of safety considerations:

| **ATTENTION** | Identifies information about practices or circumstances that can lead to personal injury or death, property damage or economic loss |
| --- | --- |

Attention statements help you to:

- identify a hazard
- avoid a hazard
- recognize the consequences

| **IMPORTANT** | Identifies information that is critical for successful application and understanding of the product. |
| --- | --- |

Allen-Bradley and ControlLogix are trademarks of Rockwell Automation.

## Understand Compliance to European Union Directive

If this product bears the CE marking, it is approved for installation within the European Union and EEA regions. It has been designed and tested to meet the following directives.

### EMC Directive

This product is tested to meet Council Directive 89/336/EEC Electromagnetic Compatibility (EMC) and the following standards, in whole or in part, documented in a technical construction file:

- EN 50081-2 EMC - Generic Emission Standard, Part 2 - Industrial Environment
- EN 50082-2 EMC - Generic Immunity Standard, Part 2 - Industrial Environment

This product is intended for use in an industrial environment.

### Low Voltage Directive

This product is tested to meet Council Directive 73/23/EEC Low Voltage, by applying the safety requirements of EN 61131-2 Programmable Controllers, Part 2 - Equipment Requirements and Tests.

For specific information required by EN 61131-2, see the appropriate sections in this publication, as well as the following Allen-Bradley publications:

- Industrial Automation Wiring and Grounding Guidelines, publication 1770-4.1
- Automation Systems Catalog, publication B113

Open style devices must be provided with environmental and safety protection by proper mounting in enclosures designed for specific application conditions. See NEMA Standards publication 250 and IEC publication 529, as applicable, for explanations of the degrees of protection provided by different types of enclosure.

## Tools that You Need

If you are going to add a memory board to the controller, you need the following tools:

- #2 phillips screwdriver
- grounding wriststrap

## How to Handle ControlLogix Components

To guard against ESD damage, take these precautions:

| **ATTENTION** | Electrostatic discharge can damage the components. Follow these guidelines: |
|---|---|
|  | <ul><li>touch a grounded object to discharge potential static</li><li>wear an approved grounding wriststrap</li><li>do not touch connectors or pins on component boards</li><li>do not touch circuit components inside the controller</li><li>if available, use a static-safe work station</li><li>when not in use, store each component in the anti-static packaging in which it was shipped</li></ul> |

You can install or remove ControlLogix components while chassis power is applied and the system is operating. If you remove the controller, all the devices owned by the controller go to their configured faulted state.

WARNING

When you insert or remove a module while backplane power is on, an electrical arc may occur. An electrical arc can cause personal injury or property damage by:

- sending an erroneous signal to your system's actuators causing unintended machine motion or loss of process control
- causing an explosion in a hazardous environment

Repeated electrical arcing causes excessive wear to contacts on both the module and its mating connector. Worn contacts may create electrical resistance that can affect module operation.

## What You Need to Do

Before you install a controller, do these preliminary steps:

☑ Install a ControlLogix chassis according to the *ControlLogix Chassis Installation Instructions*, publication 1756-5.80.

☑ Install a ControlLogix power supply according to the corresponding installation instructions:

| Install this power supply: | According to this publication: |
|---|---|
| 1756-PA72 | *ControlLogix Power Supplies Installation Instructions*, publication 1756-5.1 |
| 1756-PB72 | |
| 1756-PA75 | *ControlLogix Power Supplies Installation Instructions*, publication 1756-5.78 |
| 1756-PB75 | |
| 1756-PA75R | • *ControlLogix Redundant Power Supplies Installation Instructions*, publication 1756-IN573 |
| 1756-PB75R | |
| | • *ControlLogix Redundant Power Supplies Chassis Adapter Module Installation Instructions*, publication 1756-IN574 |

To install a controller, do these tasks:

☐ Make Sure that You Have All the Components

☐ Install the Memory Board (If Required)

☐ Install the Battery

☐ Install the Controller

☐ Update the Firmware of the Controller

## Make Sure that You Have All the Components

**1.** These components ship with the controller:

| Component: | Description: |
|---|---|
| | 1756-BA1 battery |
| | key |
| 1756-L1<br>1756-L1M1<br>1756-L1M2 | catalog number labels<br><br>The catalog numbers on your labels may be different from the ones that are shown. |

---

| **IMPORTANT** | If you have a 1756-L55 controller, you *must* install a memory board. |
|---|---|

**2.** If you are installing a memory board, you also need the following components:

| Component: | Description: |
|---|---|
| 40042 | memory board |
| | memory board label |

Use the following table to determine which memory board goes with your controller.

| Use this memory board: | With this controller: | | |
|---|---|---|---|
| | **1756-L1, -L1Mx** | **1756-L53** | **1756-L55, -L55Mxx** |
| 1756-M1 | ✔ | | |
| 1756-M2 | ✔ | | |
| 1756-M3 | ✔ | | |
| 1756-M13 | | | ✔ |
| 1756-M14 | | | ✔ |
| 1756-M16 | | | ✔ |
| 1756-M23 | | | ✔ |
| 1756-M24 | | | ✔ |

## Install the Memory Board (If Required)

| ATTENTION | If you have a 1756-L53 controller, *do not* take apart the controller or try to remove the memory board. If you remove or modify the memory board, you will irreparably damage the controller. |
|---|---|

Are you going to add or replace a memory board?

| If: | Then: |
|---|---|
| No | Go to "Install the Battery" on page 18. |
| Yes | Install the memory board. |

To install the memory board:

- Update the Firmware of the Controller (If Required)
- Remove the Controller from the Chassis
- Remove the Side Plate of the Controller
- Remove the Existing Memory Board (If Any)
- Install the Memory Board
- Replace the Side Plate
- Attach Labels

## Update the Firmware of the Controller (If Required)

**1.** Are you replacing an M13, M14, or M16 memory board with an M23 or M24 memory board?

| If: | Then: |
|-----|-------|
| No | Go to "Remove the Controller from the Chassis" on page 11. |
| Yes | Go to step 2. |

**2.** *Before* you replace the board, update the firmware of the controller to revision 8.x or later. See "Update the Firmware of the Controller" on page 27.

## Remove the Controller from the Chassis

**1.** On the top and bottom of the controller, press the locking tabs.
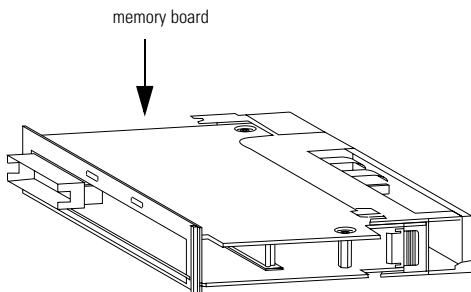
**2.** Slide the controller out of the chassis.
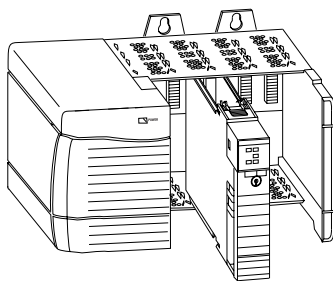


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## Remove the Side Plate of the Controller

1. Lay the controller on its side with the label facing up.

2. While wearing a grounding wriststrap, remove the two screws that attach the side plate to the controller.

3. Rotate the side plate up and unhook it from the controller.

side plate

front of controller

40017
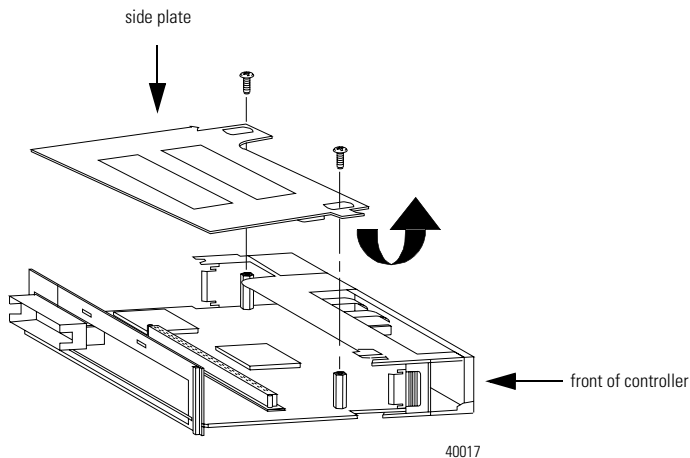
## Remove the Existing Memory Board (If Any)

memory board



42527

1. Does the controller already have a memory board?

| If: | Then: |
| --- | --- |
| No | Go to "Install the Memory Board" on page 15. |
| Yes | Go to step 2. |

**2.** Pull the plastic back edge of the controller out slightly to clear the tabs on the memory board.
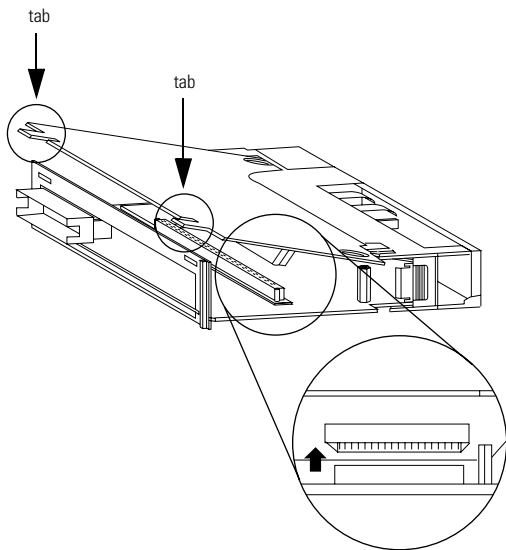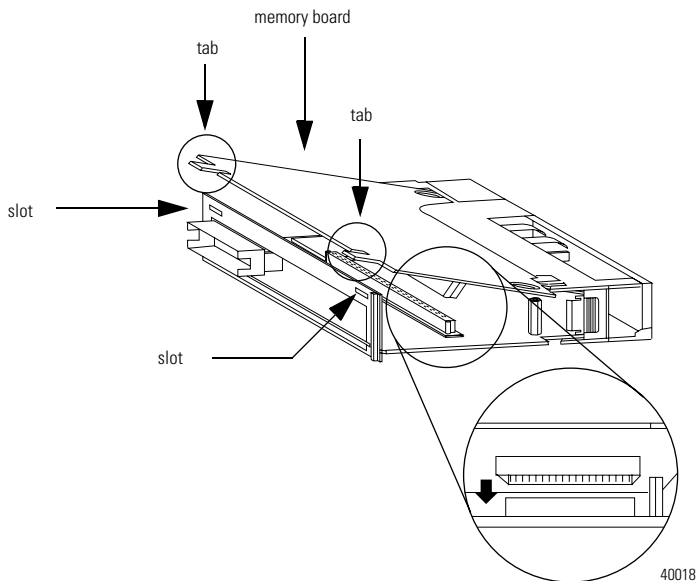


42526

**3.** Gently separate and remove the memory board from the controller.

## Install the Memory Board

1. Place the memory board over the connector and slide the memory board into the controller.



memory board

tab

tab

slot

slot

40018

2. Pull the plastic back edge of the controller out slightly to clear the tabs of the memory board.

3. Line up the connectors.

4. Place your hands on the boards over the connectors and gently squeeze them together.

5. Make sure that the tabs on the memory board extend through the slots on the plastic housing of the controller.

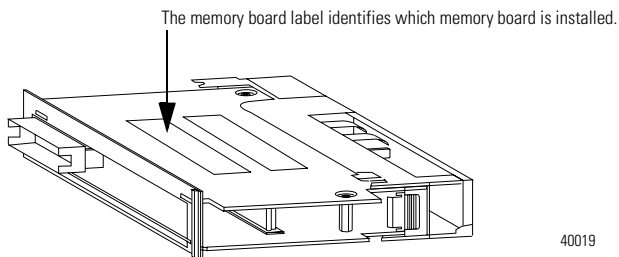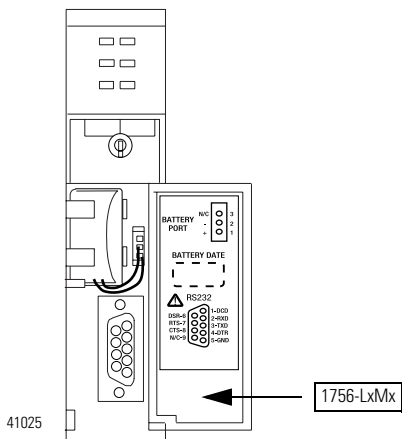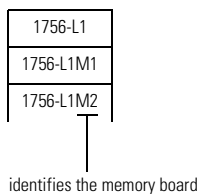## Replace the Side Plate
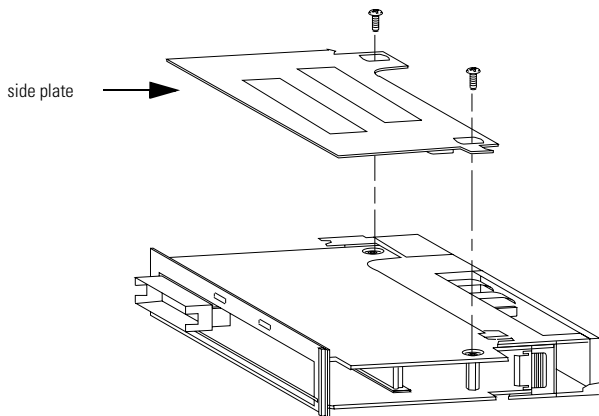


side plate

40019

1. Line up the hinge tabs on the side plate with the slots in the plastic housing of the controller.

2. Gently press the side plate against the controller.

3. Replace the screws.

## Attach Labels

**1.** Place the memory board label on the side of the controller.

The memory board label identifies which memory board is installed.

40019

**2.** From the sheet of catalog labels, peel off the label that corresponds to the memory board that you installed. (E.g., If you installed an M2 memory board, peel off the 1756-L1M2 label.)

| 1756-L1 |
| 1756-L1M1 |
| 1756-L1M2 |

identifies the memory board

BATTERY PORT   N/C
3
2
1

BATTERY DATE

⚠ RS232

DSR-6   1-DCD
RTS-7   2-RXD
CTS-8   3-TXD
N/C-9   4-DTR
5-GND

1756-LxMx

41025

**3.** Place the catalog number label on the inside of the controller door.

## Install the Battery

| WARNING | The controller uses a lithium battery, which contains potentially dangerous chemicals. Before you handle or dispose a battery, review *Guidelines for Handling Lithium Batteries*, publication AG-5.4. |
|---|---|

Store batteries in a cool, dry environment. We recommend 25°C with 40% to 60% relative humidity. You may store batteries for up to 30 days between -45° to 85°C, such as during transportation. To avoid possible leakage, *do not* store batteries above 60°C for more than 30 days.

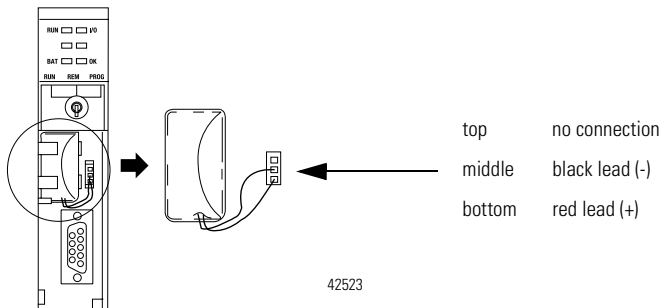**1.** Are you using a 1756-BATM battery module?

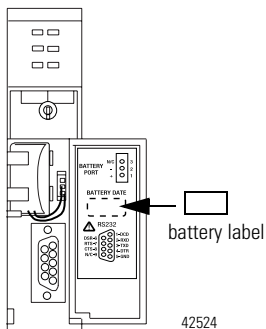| If: | Then: |
|---|---|
| No | Go to step 4. |
| Yes | Go to step 2. |

**2.** Install the battery module. See the *Logix5000 Battery Module Installation Instructions,* publication 1756-IN576.

**3.** Go to "Install the Controller" on page 22.

| ATTENTION | Only install a 1756-BA1 battery. If you install a different battery, you may damage the controller. |

**4.** Install a 1756-BA1 battery.

| top | no connection |
| middle | black lead (-) |
| bottom | red lead (+) |

42523

battery label

42524

**5.** Write on the battery label the date you install the battery.

**6.** Attach the label to the inside of the controller door.

**ATTENTION**

To prevent possible battery leakage, even if the BAT LED is off, replace a battery according to the following schedule:

| If the temperature 1 in. below the chassis is: | Replace the battery within: |
|---|---|
| 0° to 35° C | No replacement is required until the BAT LED turns on. |
| 36° to 40° C | 3 years |
| 41° to 45° C | 2 years |
| 46° to 50° C | 16 months |
| 51° to 55° C | 11 months |
| 56° to 60° C | 8 months |

## Install the Controller
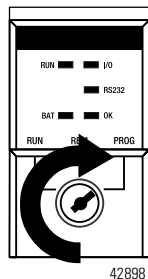
To install the controller:

- Turn the Keyswtich to the PROG Position
- Install the Controller
- Check the BAT LED

### Turn the Keyswtich to the PROG Position



42899
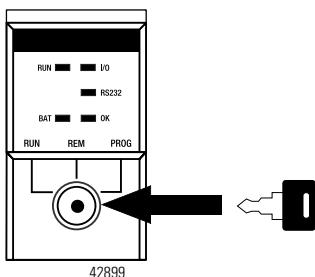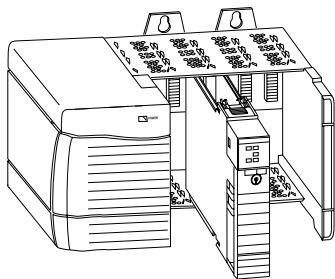
**1.** Insert the key into the controller.

**2.** Turn the key to the PROG position.



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## Install the Controller

You can place the controller in any slot. You can use multiple controllers in the same chassis.

1. Align the circuit board with the top and bottom guides in the chassis.
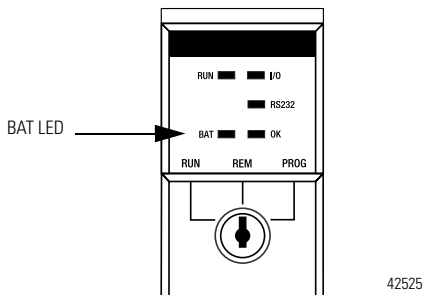


20880

2. Slide the module into the chassis. The controller is fully installed when it is flush with the power supply or other installed modules and the top and bottom latches are engaged.

## Check the BAT LED

**1.** Turn on the chassis power.

BAT LED →

42525

**2.** Is the BAT LED off?

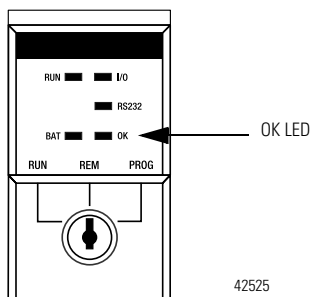| If: | Then: |
|-----|-------|
| Yes | Go to "Update the Firmware of the Controller" on page 24. |
| No | Go to step 3. |

**3.** Check that the battery or battery module is correctly connected to the controller.

**4.** If the BAT LED remains on, install another battery.

**5.** If the BAT LED remains on after you complete step 4, contact your Rockwell Automation representative or local distributor.

## Update the Firmware of the Controller

To update the firmware of the controller:

- Check the OK LED
- Determine Which Firmware Revisions You Can Use
- Update the Firmware of the Controller

### Check the OK LED



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**1.** What color is the OK LED?

| If: | Then: | Actions: |
|---|---|---|
| Green | The controller is OK and its firmware has been updated. | No further actions are required. However, the revision of firmware must be compatible with your revision of RSLogix 5000 software. |
| Flashing red | The controller is OK but it requires a firmware update. | Go to "Determine Which Firmware Revisions You Can Use" on page 26. |
| Solid red | The memory board of the controller may not be compatible with the revision of firmware. | Go to step 2. |

**2.** Did you add a M23 or M24 memory board to a controller that previously contained an M13, M14, or M16 memory board?

| If: | Then: |
|-----|-------|
| Yes | Go to step 3. |
| No | The controller is not operational. Contact your Rockwell Automation representative or local distributor. |

**3.** Install an M13, M14, or M16 board.

**4.** Update the firmware of the controller to revision 8.x or later. See "Update the Firmware of the Controller" on page 27.

**5.** Re-install the M23 or M24 memory board.

**6.** What color is the OK LED?

| If: | Then: |
|-----|-------|
| Green | No further actions are required. However, the revision of firmware must be compatible with your revision of RSLogix 5000 software. |
| Red | The controller is not operational. Contact your Rockwell Automation representative or local distributor. |

**Determine Which Firmware Revisions You Can Use**

Use the following table to determine which firmware revisions to use with your controller and memory board combination:

| If you have this controller and memory board: | Use this revision of firmware: |
|---|---|
| 1756-L1 | any |
| 1756-L1M1 | |
| 1756-L1M2 | |
| 1756-L1M3 | |
| 1756-L53 | 6.x or later |
| 1756-L55M13 | |
| 1756-L55M14 | |
| 1756-L55M16 | |
| 1756-L55M23 | 8.x or later |
| 1756-L55M24 | |

## Update the Firmware of the Controller

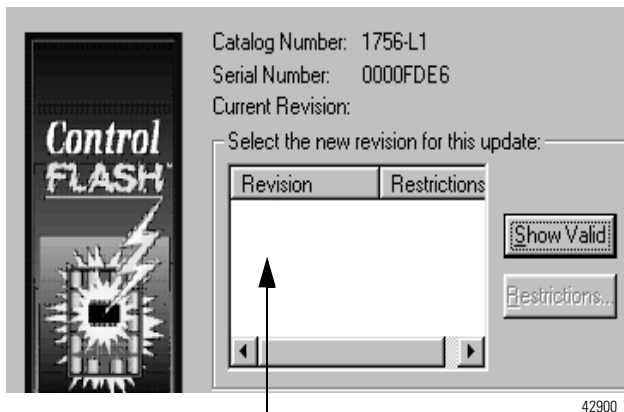To update the firmware of the controller, use a ControlFLASH Firmware Upgrade Kit.

- An upgrade kit ships with RSLogix 5000 software.
- To download an upgrade kit, go to www.ab.com. Select *Product Support*. Select *Firmware Updates*.

For more information, see the *ControlFLASH Firmware Upgrade Kit User Manual*, publication 1756-6.5.6.

**TIP**

If ControlFLASH software does not show any firmware revisions for your controller, download a new upgrade kit. Older upgrade kits do not work with new controllers.



Catalog Number: 1756-L1
Serial Number: 0000FDE6
Current Revision:

Select the new revision for this update:

| Revision | Restrictions |
| --- | --- |
| | |

Show Valid

Restrictions...

42900

If this box does not show the required firmware, download a new kit.

## Serial (RS-232) Port

| WARNING | If you connect or disconnect the serial cable with power applied to this module or the serial device on the other end of the cable, an electrical arc can occur. This could cause an explosion in hazardous location installations. Be sure that power is removed or the area is nonhazardous before proceeding. |
|---|---|

Use the serial port for RS-232 communication.

DSR-6  1-DCD
RTS-7  2-RXD
CTS-8  3-TXD
N/C-9  4-DTR
       5-GND

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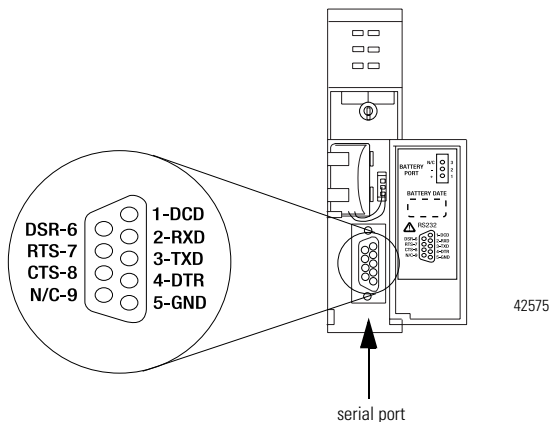
serial port

To connect a workstation to the serial port, use one of these cables:

- 1756-CP3 serial cable
- 1747-CP3 cable from the SLC product family (If you use this cable, the controller door will not close.)
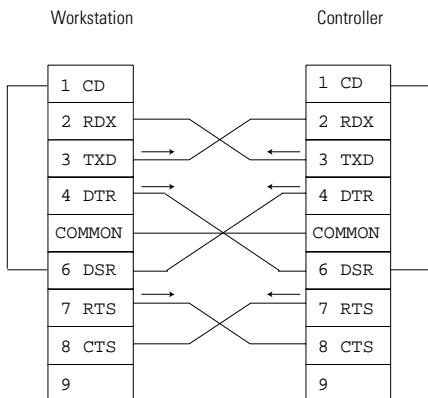
workstation end
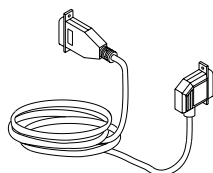
controller end

42576

If you make your own serial cable:

- Limit the length to 15.2m (50 ft).
- Wire the connectors as follows:



Workstation

Controller

| 1 CD | 1 CD |
| 2 RDX | 2 RDX |
| 3 TXD | 3 TXD |
| 4 DTR | 4 DTR |
| COMMON | COMMON |
| 6 DSR | 6 DSR |
| 7 RTS | 7 RTS |
| 8 CTS | 8 CTS |
| 9 | 9 |

42231

- Attach the shield to both connectors

## Agency Certifications

When marked, the controller and memory board have the following certifications:

| This component: | Has these certifications (when the product is marked): | |
|---|---|---|
| 1756-L1 controller<br>1756-L53 controller<br>1756-L55 controller | (UL) | Listed Industrial Control Equipment |
| | (SA) | Certified Process Control Equipment<br>Certified Class I, Division 2, Group A, B, C, D |
| | C€ | Marked for all applicable directives |
| | ☯<br>N223 | Marked for all applicable acts |
| 1756-Mx memory board | ☢ | UL Recognized Component Industrial Control Equipment |
| | (SA) | Certified component Process Control Equipment<br>Certified component Class I, Division 2, Group A, B, C, D |
| | C€ | Marked for all applicable directives |
| | ☯<br>N223 | Marked for all applicable acts |

## Specifications

### Table A 1756-L1, -L1Mx Controller

| Description: | Value: | | | |
|---|---|---|---|---|
| | **1756-L1** | **1756-L1M1** | **1756-L1M2** | **1756-L1M3** |
| user available memory[1] | 64K bytes | 512K bytes | 1M bytes | 2M bytes |
| nonvolatile memory | no | no | no | no |
| peak backplane current<br>  +5V dc<br>  +24V dc | 0.65A<br>0.02A | 0.95A<br>0.02A | 1.05A<br>0.02A | 1.20A<br>0.02A |
| average power dissipation | 3.3W | 4.6W | 4.8W | 5.4W |
| average thermal dissipation | 11.3 BTU/hr | 15.6 BTU/hr | 16.4 BTU/hr | 18.4 BTU/hr |
| weight | 10.0 oz. | 12.5 oz. | 12.5 oz. | 12.7 oz. |
| operating temperature | 0° to 60° C (32 to 140° F) | | | |
| storage temperature | -40° to 85° C (-40 to 185° F) | | | |
| relative humidity | 5% to 95% noncondensing | | | |
| vibration | 10 to 500 Hz<br>2.0 G maximum peak acceleration | | | |
| operating shock | 30G peak for 11ms | | | |
| storage shock | 50G peak for 11ms | | | |
| programming cable | 1756-CP3 or 1747-CP3 serial cable<br>category 3[2] | | | |
| battery | 1756-BA1 (NEXERGY 94194801)<br>0.59g lithium | | | |

[1]  Amount of memory available after RSLogix 5000 software is connected and a null project is loaded

[2]  See *Industrial Automation Wiring and Grounding Guidelines*, publication 1770-4.1.

**Table B 1756-L53 Controller**

| Description: | Value: |
|---|---|
| user available memory[1] | 1.5M bytes |
| nonvolatile memory | no |
| peak backplane current<br>    +5V dc<br>    +24V dc | 1.20A<br>0.02A |
| average power dissipation | 5.4W |
| average thermal dissipation | 18.4 BTU/hr |
| weight | 12.7 oz. |
| operating temperature | 0° to 60° C (32 to 140° F) |
| storage temperature | -40° to 85° C (-40 to 185° F) |
| relative humidity | 5% to 95% noncondensing |
| vibration | 10 to 500 Hz<br>2.0 G maximum peak acceleration |
| operating shock | 30G peak for 11ms |
| storage shock | 50G peak for 11ms |
| programming cable | 1756-CP3 or 1747-CP3 serial cable<br>category 3[2] |
| battery | 1756-BA1 (NEXERGY 94194801)<br>0.59g lithium |

[1]   Amount of memory available after RSLogix 5000 software is connected and a null project is loaded

[2]   See *Industrial Automation Wiring and Grounding Guidelines*, publication 1770-4.1.

**Table C 1756-L55Mxx Controller**

| Description: | Value: | | |
|---|---|---|---|
| | **1756-L55M13** | **1756-L55M14** | **1756-L55M16** |
| user available memory[1] | 1.5M bytes | 3.5M bytes | 7.5M bytes (no more than 3.5M bytes of data) |
| nonvolatile memory | no | no | no |
| peak backplane current +5V dc +24V dc | 1.23A 0.014A | 1.25A 0.014A | 1.48A 0.014A |
| average power dissipation | 5.6W | 5.7W | 6.3W |
| average thermal dissipation | 19.1 BTU/hr | 19.4 BTU/hr | 21.5 BTU/hr |
| weight | 12.5 oz. | 12.8 oz. | 13.4 oz. |
| operating temperature | 0° to 60° C (32 to 140° F) | | |
| storage temperature | -40° to 85° C (-40 to 185° F) | | |
| relative humidity | 5% to 95% noncondensing | | |
| vibration | 10 to 500 Hz 2.0 G maximum peak acceleration | | |
| operating shock | 30G peak for 11ms | | |
| storage shock | 50G peak for 11ms | | |
| programming cable | 1756-CP3 or 1747-CP3 serial cable category 3[2] | | |
| battery | 1756-BA1 (NEXERGY 94194801) 0.59g lithium | | |

[1] Amount of memory available after RSLogix 5000 software is connected and a null project is loaded

[2] See *Industrial Automation Wiring and Grounding Guidelines*, publication 1770-4.1.

**Table C 1756-L55Mxx Controller (Continued)**

| Description: | Value: | |
|---|---|---|
| | **1756-L55M23** | **1756-L55M24** |
| user available memory[1] | 1.5M bytes | 3.5M bytes |
| nonvolatile memory | yes | yes |
| peak backplane current<br>+5V dc<br>+24V dc | 1.23A<br>0.014A | 1.25A<br>0.014A |
| average power dissipation | 5.6W | 5.7W |
| average thermal dissipation | 19.1 BTU/hr | 19.4 BTU/hr |
| weight | 12.5 oz. | 12.8 oz. |
| operating temperature | 0° to 60° C (32 to 140° F) | |
| storage temperature | -40° to 85° C (-40 to 185° F) | |
| relative humidity | 5% to 95% noncondensing | |
| vibration | 10 to 500 Hz<br>2.0 G maximum peak acceleration | |
| operating shock | 30G peak for 11ms | |
| storage shock | 50G peak for 11ms | |
| programming cable | 1756-CP3 or 1747-CP3 serial cable<br>category 3[2] | |
| battery | 1756-BA1 (NEXERGY 94194801)<br>0.59g lithium | |

[1] Amount of memory available after RSLogix 5000 software is connected and a null project is loaded

[2] See *Industrial Automation Wiring and Grounding Guidelines*, publication 1770-4.1.

## Additional Notes

This product must be mounted within a suitable system enclosure to prevent personal injury resulting from accessibility to live parts. The interior of this enclosure must be accessible only by the use of a tool.

This industrial control equipment is intended to operate in a Pollution Degree 2 environment, in overvoltage category II applications, (as defined in IEC publication 664A) at altitudes up to 2000 meters without derating.

## Hazardous Location information

### The following information applies when operating this equipment in hazardous locations:

Products marked "CL I, DIV 2, GP A, B, C, D" are suitable for use in Class I Division 2 Groups A, B, C, D, Hazardous Locations and nonhazardous locations only. Each product is supplied with markings on the rating nameplate indicating the hazardous location temperature code. When combining products within a system, the most adverse temperature code (lowest "T" number) may be used to help determine the overall temperature code of the system. Combinations of equipment in your system are subject to investigation by the local Authority Having Jurisdiction at the time of installation.

| WARNING | **EXPLOSION HAZARD** |
|---|---|
| | • Do not disconnect equipment unless power has been removed or the area is known to be nonhazardous. |
| | • Do not disconnect connections to this equipment unless power has been removed or the area is known to be nonhazardous. Secure any external connections that mate to this equipment by using screws, sliding latches, threaded connectors, or other means provided with this product. |
| | • Substitution of components may impair suitability for Class I, Division 2. |
| | • If this product contains batteries, they must only be changed in an area known to be nonhazardous. |

## Informations sur l'utilisation de cet équipement en environnements dangereux :

Les produits marqués « CL I, DIV 2, GP A, B, C, D » ne conviennent qu'à une utilisation en environnements de Classe I Division 2 Groupes A, B, C, D dangereux et non dangereux. Chaque produit est livré avec des marquages sur sa plaque d'identification qui indiquent le code de température pour les environnements dangereux. Lorsque plusieurs produits sont combinés dans un système, le code de température le plus défavorable (code de température le plus faible) peut être utilisé pour déterminer le code de température global du système. Les combinaisons d'équipements dans le système sont sujettes à inspection par les autorités locales qualifiées au moment de l'installation.

| AVERTISSEMENT | **RISQUE D'EXPLOSION** |
|---|---|
| ⚠ | • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher l'équipement. |
| | • Couper le courant ou s'assurer que l'environnement est classé non dangereux avant de débrancher les connecteurs. Fixer tous les connecteurs externes reliés à cet équipement à l'aide de vis, loquets coulissants, connecteurs filetés ou autres moyens fournis avec ce produit. |
| | • La substitution de composants peut rendre cet équipement inadapté à une utilisation en environnement de Classe 1, Division 2. |
| | • S'assurer que l'environnement est classé non dangereux avant de changer les piles. |

## Additional Manuals

This product has the following manuals:

- *Logix5000 Controllers Common Procedures*, publication 1756-PM001
- *Logix5000 Controllers General Instructions Reference Manual*, publication 1756-RM003
- *ControlLogix System User Manual*, publication 1756-UM001

If you want to:

- view or download a manual, visit either of these locations:
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